

## REPORT REVIEW

# Landesbank Baden-Württemberg Green Bond Allocation and Impact Report

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Green Bond Allocation and Impact Report Landesbank Baden-Württemberg

5 April 2024

## VERIFICATION PARAMETERS

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### Type(s) of reporting

- Green Bond Allocation and Impact

### Relevant standard(s)

- Harmonized Framework for Impact Reporting (HFIR), updated June 2023, as administered by the International Capital Market Association (ICMA)
- Landesbank Baden-Württemberg's Green Bond Allocation and Impact Report (as of March 14, 2024)
- Landesbank Baden-Württemberg's Green Bond Framework (as of March 28, 2022)

### Scope of verification

- Bonds identification:

ISIN DE000LB38937 / bond maturity date on November 28, 2025 (EUR 500 million)

ISIN CH1294486332 / bond maturity date October 4, 2028 (CHF 150 million)

ISIN DE000LB387B4 / bond maturity date September 27, 2027 (EUR 500 million)

ISIN DE000LB2ZV93 / bond maturity date February 28, 2028 (EUR 1 billion)

ISIN DE000LB2ZTL3 / bond maturity date February 24, 2025 (USD 750 million)

ISIN DE000LB2V7C3 / bond maturity date July 21, 2028 (EUR 500 million)

ISIN DE000LB2CU83 / bond maturity date December 8, 2025 (GBP 250 million)

ISIN DE000LB2CQX3 / bond maturity date February 3, 2025 (GBP 500 million)

ISIN DE000LB2CLH7 / bond maturity date July 29, 2026 (EUR 500 million)

ISIN DE000LB2CHW4 / bond maturity date May 24, 2024 (EUR 750 million)

**Lifecycle**

- Post-issuance verification

**Validity**

- As long as no changes are undertaken by the Issuer to its Green Bond Allocation and Impact Report as of March 14, 2024

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## SCOPE OF WORK

Landesbank Baden-Württemberg (“the Issuer” or “LBBW”) commissioned ISS-Corporate to provide a Report Review on its Green Bond Allocation and Impact Report by assessing:

1. The alignment of the Landesbank Baden-Württemberg’s Green Bond Allocation and Impact Report with the commitments set forth in Landesbank Baden-Württemberg’s Green Bond Framework (as of March 28, 2022).<sup>1</sup>
2. Landesbank Baden-Württemberg’s Green Bond Allocation and Impact Report - benchmarked against the Harmonised Framework for Impact Reporting (HFIR), updated June 2023.
3. The disclosure of proceeds allocation and soundness of reporting indicators – whether the impact metrics align with best market practices and are relevant to the Green Bonds issued.

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<sup>1</sup> The Framework was assessed as aligned with the Green Bond Principles as of March 29, 2022.

## ASSESSMENT SUMMARY

| REVIEW SECTION  | SUMMARY  | EVALUATION             |
|---|--|------------------------|
| <p><b>Part 1.</b></p> <p><b>Alignment with the Issuer’s commitments set forth in the Framework</b></p>      | <p>LBBW’s Green Bond Allocation and Impact Report meets the Issuer’s commitments set forth in the Green Bond Framework. The proceeds have been used to (re)finance a portfolio of Renewable Energy and Green Buildings projects in accordance with the eligibility criteria defined in the Framework.</p>  | <p><b>Aligned</b></p>  |
| <p><b>Part 2.</b></p> <p><b>Alignment with the Harmonized Framework for Impact Reporting (HFIR)</b></p>     | <p>The Green Bond Allocation and Impact Report is in line with ICMA’s Harmonized Framework for Impact Reporting (HFIR). The Issuer follows core principles and where applicable key recommendations.</p> <p>The Issuer illustrates the environmental impacts generated by its Green Bond. The allocated proceeds have been reported in a single currency (EUR).</p>  | <p><b>Aligned</b></p>  |
| <p><b>Part 3.</b></p> <p><b>Disclosure of proceeds allocation and soundness of reporting indicators</b></p> | <p>The allocation of the bond’s proceeds has been disclosed, with a detailed breakdown across different eligible project categories as proposed in the Framework.<sup>2</sup></p> <p>LBBW’s Green Bond Allocation and Impact Report has adopted an appropriate methodology to report the impact generated by providing comprehensive disclosure on data sourcing, calculations methodologies and granularity reflecting best market practices.</p> | <p><b>Positive</b></p> |

<sup>2</sup> The assessment is based on the information provided in the Issuer’s report. The Issuer is responsible for the preparation of the report including the application of methods and procedures designed to ensure that the subject matter information is free from material misstatement.

## REPORT REVIEW ASSESSMENT

### PART I: ALIGNMENT WITH COMMITMENTS SET FORTH IN THE GREEN BOND FRAMEWORK<sup>3</sup>

The following table evaluates the Green Bond Allocation and Impact Report against the commitments set forth in LBBW’s Green Bond Framework, which are based on the core requirements of the Green Bond Principles as well as best market practices.

| ICMA GREEN BOND PRINCIPLES                                    | OPINION  | ALIGNMENT WITH COMMITMENT |
|---|--|---------------------------|
| <p><b>1. Use of Proceeds</b></p>                              | <p>LBBW confirms to follow the Use of Proceeds’ description provided by LBBW’s Green Bond Framework. The report is in line with the initial commitments set in LBBW’s Green Bond Framework.</p> <p>The Issuer’s green categories align with the project categories and are in accordance with the eligibility criteria set in LBBW’s Green Bond Framework. Environmental benefits at category level are described and quantified.</p> <p>The Issuer also confirms that 100% of the bond proceeds (EUR 5,454,226,091) have been allocated to the projects.</p>  | <p>✓</p>                  |
| <p><b>2. Process for Project Evaluation and Selection</b></p> | <p>LBBW confirms to follow the Process for Project Evaluation and Selection description provided by LBBW’s Green Bond Framework. The report is in line with the initial commitments set in the LBBW’s Green Bond Framework.</p> <p>The projects selected are defined and structured in a congruous manner. The Issuer ensures compliance with the Eligibility Criteria. ESG risks associated with the project categories are identified and managed through an appropriate process.</p> <p>The Green Bond Committee – renamed ESG Bond Committee in July 2023 – oversees the evaluation and selection process: the Committee consists of</p> | <p>✓</p>                  |

<sup>3</sup> LBBW’s Green Bond Framework was assessed as aligned with the GBP (as of June, 2021) as of as of March 29, 2022.

|   |  |   |
|---|--|---|
|   | <p>representatives of the Treasury, the Risk department, the Real Estate department as well as the Sustainability and ESG department.</p>  |   |
| <p><b>3. Management of Proceeds</b></p> | <p>LBBW confirms to follow the Process for Management of Proceeds description provided by LBBW’s Green Bond Framework. The report is in line with the initial commitments set in LBBW’s Green Bond Framework.</p> <p>The proceeds collected are equal to 100% of the amount allocated to eligible projects, with no exceptions. The proceeds are tracked in an appropriate manner and attested in a formal internal process.</p>   |    |
| <p><b>4. Reporting</b></p>              | <p>LBBW Impact Report is coherent with the Reporting description provided by LBBW’s Green Bond Framework. The report is in line with the initial commitments set in LBBW’s Green Bond Framework.</p> <p>The sections “Allocation reporting” and “Impact Reporting” of the Green Bond Allocation and Impact Report comply with the pre-issuance commitment expressed in the Framework. The report is intended to be publicly available on LBBW’s website.</p> <p><i>Further analysis of this section is available in Part III of this report.</i></p> |  |
| <p><b>5. Verification</b></p>           | <p>ISS-Corporate has provided a Second Party Opinion (SPO) on LBBW’s Green Bond Framework on March 29, 2022.</p>   |   |

## PART II: ASSESSMENT AGAINST THE ICMA'S HARMONISED FRAMEWORK FOR IMPACT REPORTING (HFIR)

Reporting is a core component of the Green Bond Principles and transparency is of particular value in communicating the expected and/or achieved impact of projects in the form of an annual reporting. Green bond Issuers are required to report on both the use of green bond proceeds, as well as the environmental impacts at least on an annual basis until full allocation or maturity of the bond. Harmonised Framework for Impact Reporting (HFIR) has been chosen as a benchmark for this analysis as it represents the most widely adopted standard.

The table below evaluates the LBBW Green Bond Allocation and Impact Reporting against ICMA's Harmonised Framework for Impact Reporting (HFIR).

| CORE PRINCIPLES                                    |  |            |
|--|--|------------|
| ICMA HFIR  | GREEN BOND ALLOCATION AND IMPACT REPORTING   | ASSESSMENT |
| Reporting on an annual basis                       | LBBW has reported within one year from issuance and all the proceeds have been fully allocated. The report will be available on LBBW's website.  | ✓          |
| Illustrating the environmental impacts or outcomes | <p>The assessment and measurement of the impacts generated by LBBW Green Bond(s) covered the following areas:</p> <p>Renewable energy:</p> <ul style="list-style-type: none"> <li>▪ LBBW attributed production (MW)</li> <li>▪ LBBW attributed capacity (MW)</li> <li>▪ LBBW attributed avoided emissions (tCO<sub>2</sub>e/year)</li> <li>▪ Total avoided emissions per EUR (tCO<sub>2</sub>e/M EUR)</li> <li>▪ Total avoided emissions per production (kgCO<sub>2</sub>e/MWh)</li> </ul> <p>Green building:</p> <ul style="list-style-type: none"> <li>▪ Annual final energy savings (MWh/year)</li> <li>▪ Annual CO<sub>2</sub> emissions avoidance (tCO<sub>2</sub>/year)</li> </ul> | ✓          |

|   |   |   |
|---|---|---|
|   | <ul style="list-style-type: none"> <li>Avoided annual CO<sub>2</sub> emissions per million EUR invested (tCO<sub>2</sub>/M EUR)</li> </ul>  |   |
| ESG Risk Management                                   | LBBW has an ESG Risk Management in place as defined under their framework. It is overseen by its Board of Managing Directors. Risk management involves the use of evolving tools to handle risks, including establishing internal controls and ensuring risk capacity. The Issuer employs checklists to assess ESG risks, aiding in risk management and mitigation. | ✓ |
| Allocation of proceeds - Transparency on the currency | Allocated proceeds have been reported in different currencies (CHF, USD, and GBP), and converted to Euro (EUR).   | ✓ |

**RECOMMENDATIONS**

| ICMA HFIR   | GREEN BOND ALLOCATION AND IMPACT REPORTING  | ASSESSMENT |
|---|---|------------|
| Define and disclose period and process for Project Evaluation and Selection | <p>The entirety of proceeds has been allocated to Green Assets. LBBW follows the portfolio approach, resulting in ongoing redemptions and new financings throughout the year. Furthermore, a volume of around EUR 440 million of green assets was taken out of the green asset pool in 2023. These assets have been used for a taxonomy-aligned ESG bond outside the green bond framework. Removals and additions are supervised by the green bond committee.</p> <p>The Issuer followed a transparent process for the selection and evaluation of Eligible Green Projects. Projects financed and/or refinanced through the Green Bonds issued under the Green Bond Framework were evaluated and selected based on compliance with the Eligibility Criteria as laid out in the Framework.</p> | ✓          |
| Disclose total amount of proceeds allocated                                 | A total of EUR 6,283,870,103 (EUR 5,454,226,091 from bond proceeds + EUR 829,644,012 from   | ✓          |

|   |   |          |
|---|---|----------|
| <p>to eligible disbursements</p>  | <p>cumulative retail and private placements) has been raised through the Issuer’s Green Bonds</p> <p>(DE000LB38937 / 28.11.2025 / EUR 500 million, CH1294486332 / 04.10.2028 / CHF 150 million, DE000LB387B4 / 27.09.2027 / EUR 500 million, DE000LB2ZV93 / 28.02.2028 / EUR 1 billion, DE000LB2ZTL3 / 24.02.2025 / USD 750 million, DE000LB2V7C3 / 21.07.2028 / EUR 500 million, DE000LB2CU83 / 08.12.2025 / GBP 250 million, DE000LB2CQX3 / 03.02.2025 / GBP 500 million, DE000LB2CLH7 / 29.07.2026 / EUR 500 million, DE000LB2CHW4 / 24.05.2024 / EUR 750 million).</p> <p>100% of the proceeds have been allocated to Green Assets.</p> |          |
| <p>Formal internal process for the allocation of proceeds and to report on the allocation of proceeds</p> | <p>The Issuer followed a transparent process for the allocation of proceeds in accordance to the green bond framework.</p>  | <p>✓</p> |
| <p>Report at project or portfolio level</p>   | <p>The Green Bond Allocation and Impact Reporting includes the total amount of proceeds allocated on a portfolio level.</p>   | <p>✓</p> |
| <p>Describe the approach to impact reporting</p>  | <p>The Issuer identifies the specific eligible projects and clearly defines, for each project, the total project’s allocated proceeds, signed amount, and share of total portfolio financing.</p>   | <p>✓</p> |
| <p>Report the estimated lifetime results and/or project economic life (in years)</p>                      | <p>The Issuer reports on the average portfolio lifetime results or economic life (in years) for both the eligible project categories. The average portfolio lifetime for the Renewable Energy and Green Building categories are 15.1 and 6.5 years respectively.</p>  | <p>✓</p> |
| <p>Ex-post verification of specific projects</p>  | <p>The Issuer confirms that there is no ex-post verification of its projects.</p>   | <p>-</p> |

|  |   |                                     |
|--|---|-------------------------------------|
| <p>Report on at least a limited number of sector specific core indicators</p>  | <p>The LBBW reports on the core environmental impacts for each category.</p> <p>A description of the core environmental impacts for each category is available in the report.</p> <p>Renewable energy:</p> <ul style="list-style-type: none"> <li>▪ LBBW attributed production (MW)</li> <li>▪ LBBW attributed capacity (MW)</li> <li>▪ LBBW attributed avoided emissions (tCO<sub>2</sub>e/year)</li> <li>▪ Total avoided emissions per EUR (tCO<sub>2</sub>e/M EUR)</li> <li>▪ Total avoided emissions per production (kgCO<sub>2</sub>e/MWh)</li> </ul> <p>Green building:</p> <ul style="list-style-type: none"> <li>▪ Annual final energy savings (MWh/year)</li> <li>▪ Annual CO<sub>2</sub> emissions avoidance (tCO<sub>2</sub>/year)</li> <li>▪ Avoided annual CO<sub>2</sub> emissions per million EUR invested (tCO<sub>2</sub>/M EUR)</li> </ul>  | <p style="text-align: right;">✓</p> |
| <p>If there is no single commonly-used standard, Issuers may follow and disclose their own calculation methodologies</p> | <p>LBBW recorded the annual energy generation for each asset in the given year using actual production figures or P50 estimates, which are commonly accepted in statistical modeling for energy generation evaluation in renewable energy assets. Generally, actual energy generation data was reported by LBBW. Moreover, to calculate avoided emissions:</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <math display="block">\begin{aligned} \text{Avoided emissions (tCO}_2\text{e)} &amp;= \sum_{i=1}^n (\text{Generation (MWh)}_i \times \text{Grid Operating Margin Carbon Intensity (tCO}_2\text{e /MWh)}) \end{aligned}</math> </div> <p>The final energy savings are calculated by comparing the top 15% with national building stock benchmarks for the Green Building category. Additionally, the attribution factor (%) is calculated by taking the amount outstanding</p> | <p style="text-align: right;">✓</p> |

|   |  |   |
|---|--|---|
|   | on the deal (EUR) and dividing it by the total project value (EUR).  |   |
| Disclosure on the conversion approach (if applicable)   | The Issuer elects to convert units reported for individual projects based on a standard conversion factor and includes appropriate disclosure of the conversion approach in the report. For energy-efficient Real Estate, CO <sub>2</sub> emissions avoidance is determined by multiplying the final energy savings with the carbon emissions intensity. | ✓ |
| Projects with partial eligibility   | The Issuer confirms full eligibility of all projects.  | - |
| When the expected impacts of different project components may not be reported separately, Issuers may use (and disclose) the attribution approach | The impact of LBBW's projects is reported separately per category on an aggregated basis.  | - |

OPINION

*The LBBW follows ICMA's Harmonized Framework for Impact Reporting (HFIR) core principles and key recommendations. The Issuer provides transparency on the level of expected reporting as well as on the frequency, scope, and duration, aligned with best practices.*

## PART III: DISCLOSURE OF PROCEEDS ALLOCATION AND SOUNDNESS OF THE IMPACT REPORTING INDICATORS

### Use of Proceeds Allocation

Use of Proceeds allocation reporting is key to put the impacts into perspective with the number of investments allocated to the respective Use of Proceeds' categories.

The Use of Proceeds allocation reporting occurred within one year from the three bonds issuances in 2023, after full allocation of the proceeds.

The total eligible green project portfolio was EUR 9,756,697,008. EUR 6,283,870,103 was raised through the Issuer's Green Bonds, inclusively of retail and private placements, and 100% of the proceeds were allocated to eligible green expenditures in 2023. Compared to LBBW's Allocation and Impact Report of 2023, LBBW has issued three additional bonds:

- DE000LB38937, issued on November 29, 2023, maturity date on November 28, 2025 (EUR 500 million)
- CH1294486332, issued on October 4, 2023, maturity date on October 4, 2028 (CHF 150 million)
- DE000LB387B4, issued on June 27, 2023, maturity date on September 27, 2027 (EUR 500 million)

This is the second year of allocation reporting, and the 100% of allocation in 2024 compares with the 100% of allocation in 2023. The Use of Proceeds allocation reporting occurred within the regular annual cycle from the issuance of the three additional bonds illustrated above.

### Proceeds allocated to eligible projects/assets

The proceeds' allocation is broken down at the project category level. The Issuer has provided details about the type of projects included in the portfolio.

The allocation report section of the Green Bond Allocation and Impact Report of LBBW aligns with best-market practices by providing information on:

- The total amount of Green Funding proceeds in EUR
- The percentage of net proceeds allocated to the eligible green project portfolio
- The total amount of eligible green projects in EUR, and breakdown per project category
- The total amount of new financing in the eligible portfolio, and breakdown per Renewable Energy portfolio and Green Buildings portfolio

### Impact Reporting Indicators

The table below presents an independent assessment of the Issuer’s report and disclosure on the output, outcome, and/or impact of projects/assets using impact indicators.

| ELEMENT  | ASSESSMENT   |
|--|--|
| <p><b>Relevance</b></p>  | <p>The impact indicators chosen by the Issuer for this bond are the following:</p> <p>Renewable Energy:</p> <ul style="list-style-type: none"> <li>▪ LBBW attributed production (MW)</li> <li>▪ LBBW attributed capacity (MW)</li> <li>▪ LBBW attributed annual avoided emissions (tCO<sub>2</sub>/year)</li> <li>▪ Total avoided emissions per EUR (tCO<sub>2</sub>e/mEUR)</li> <li>▪ Total avoided emissions per production (kgCO<sub>2</sub>e/MWh)</li> </ul> <p>Green Buildings</p> <ul style="list-style-type: none"> <li>▪ Annual CO<sub>2</sub> emission avoidance (tCO<sub>2</sub>/year)</li> <li>▪ Annual final energy savings (MWh/year)</li> <li>▪ Avoided annual CO<sub>2</sub> emissions per million EUR invested (tCO<sub>2</sub>/mEUR)</li> </ul> <p>These indicators are quantitative and material to the Use of Proceeds categories financed through these bonds and in line with the Suggested Impact Reporting metrics for Renewable Energy and Green Building Projects by the ICMA Harmonized Framework for Impact Report for Green Bonds. This aligns with best market practices.</p> |
| <p><b>Data sourcing and methodologies of quantitative assessment</b></p> | <p>For the impact indicators, the Issuer uses internationally recognized impact indicators relevant to each of its Use of Proceeds categories, which are in line with the core indicator proposed by the ICMA Harmonized Framework for Impact Reporting (for Green Bonds).</p> <ul style="list-style-type: none"> <li>▪ For the Renewable Energy category, the data is processed by Carbon Trust<sup>4</sup> and reviewed by the Issuer. LBBW reports on the environmental impact of projects it finances or co-finances through its green bonds based, where possible, on the actual environmental performance of the asset. Where this is not possible, estimated performance is used. The reporting includes both green indicators and resulting emissions reductions or</li> </ul>   |

<sup>4</sup> Available of LBBW’s website: [https://www.lbbw.de/group/news-and-service/investor-relations/green-bonds/green-bonds\\_ac9noe95gg\\_e.html?r=mtaznw](https://www.lbbw.de/group/news-and-service/investor-relations/green-bonds/green-bonds_ac9noe95gg_e.html?r=mtaznw)

|                                  |   |
|----------------------------------|---|
|                                  | <p>avoidance, and the reporting is based on the net benefit resulting from the asset in a given period of operation. Renewable Energy projects include both wind and solar and, for each asset, LBBW recorded the annual energy generation in the given year through actual production figures or based on P50 estimates.<sup>5</sup> In most cases, LBBW reported actual energy generation data. For its analysis, Carbon Trust considered the Partnership for Carbon Accounting Financials (PCAF) methodologies,<sup>6</sup> specifically around attribution, to adjust the avoided emissions based on the share of financing attributable to LBBW (since in some cases the Issuer does not finance the entire project). Furthermore, the projects are broken down on a country-by-country basis to provide insights into which countries/regions foster the most cost-effective emission avoidance (shown in tCO<sub>2</sub>e/year and total outstanding investment in mEUR).</p> <ul style="list-style-type: none"> <li>▪ For the Green Buildings category, the data is processed by Drees &amp; Sommer<sup>7</sup> and reviewed by the Issuer. The final energy savings (in MWh/year) is calculated using the difference between the top 15% and the national building stocks benchmarks. To calculate the annual emission avoidance (in tCO<sub>2</sub>/year), the final energy savings is multiplied with the carbon emissions intensity. Finally, the annual avoided emissions per million EUR invested (in tCO<sub>2</sub>/mEUR) are determined through dividing the annual avoided emissions by the signed amount.</li> </ul> |
| <p><b>Baseline selection</b></p> | <p>The impact data is compared with relevant baseline:</p> <ul style="list-style-type: none"> <li>▪ For Renewable Energy, to calculate the baseline emissions or the emissions from electricity generation had the Renewable Energy project not taken place, the electricity generation data was multiplied by a consolidated country-specific electricity emission factor:</li> </ul>  |

<sup>5</sup> P50 estimates provide estimate in statistical modelling of energy generation and are used in the evaluation of renewable energy assets.

<sup>6</sup> Partnership for Carbon Accounting Financials, The Global GHG Accounting and Reporting Standard for the Financial Industry <https://carbonaccountingfinancials.com/standard>

<sup>7</sup> Available of LBBW's website: [https://www.lbbw.de/group/news-and-service/investor-relations/green-bonds/green-bonds\\_ac9noe95gg\\_e.html?r=mtaznw](https://www.lbbw.de/group/news-and-service/investor-relations/green-bonds/green-bonds_ac9noe95gg_e.html?r=mtaznw)

|                                     |   |
|-------------------------------------|---|
|                                     | <p><b>Avoided emissions (tCO<sub>2</sub>e)</b></p> $= \sum_{i=1}^n (\text{Generation (MWh)}_i \times \text{Grid Operating Margin Carbon Intensity (tCO}_2\text{e /MWh)})$ <ul style="list-style-type: none"> <li>For Green Buildings, the final energy saving of the energy efficient real estate portfolio is calculated using the difference between the top 15% and the national building stock benchmarks. In this sense, the report is in line with the suggestion of the ICMA Harmonized Framework for Impact Reporting (for Green Bonds).</li> </ul> |
| <p><b>Scale and granularity</b></p> | <p>The impact data is presented at the Use of Proceed category level for the indicators.</p>  |

### High-level mapping of the impact indicators with the UN Sustainable Development Goals

Based on the project categories financed and refinanced by the bonds as disclosed in the Issuer’s Green Bond Allocation and Impact Report, the impact indicator(s) adopted by LBBW for its Green Bonds can be mapped to the following SDGs, according to ISS ESG SDG Solutions (SDGA), a proprietary methodology designed to assess the impact of an Issuer’s product or services on the UN SDGs.

| IMPACT INDICATORS  | SUSTAINABLE DEVELOPMENT GOALS  |
|--|--|
| <p><b>Renewable Energy Assets</b></p> <ul style="list-style-type: none"> <li>▪ Annual final energy savings (MWh/year)</li> <li>▪ LBBW attributed production (MW)</li> <li>▪ LBBW attributed capacity</li> <li>▪ LBBW attributed avoided emissions (tCO<sub>2</sub>e/year)</li> <li>▪ Total avoided emissions per production (kgCO<sub>2</sub>e/MWh)</li> </ul> |   |
| <p><b>Green Buildings</b></p> <ul style="list-style-type: none"> <li>▪ Annual final energy savings (MWh/year)</li> <li>▪ Annual CO<sub>2</sub> emissions avoidance (tCO<sub>2</sub>/year)</li> <li>▪ Avoided annual CO<sub>2</sub> emissions per million EUR invested (tCO<sub>2</sub>/M EUR)</li> </ul>   |   |

OPINION

*The allocation of the bond's proceeds has been disclosed, with a detailed breakdown across different eligible project categories as proposed in the Framework. The Allocation and Impact Report has adopted an appropriate methodology to report the impact generated by providing comprehensive disclosure on data sourcing, calculations methodologies and granularity reflecting best market practices. Besides, the impact indicators used align with best market practices using ICMA's recommended metrics, in the HFIR.*

**DISCLAIMER**

1. Validity of the External Review ("External Review"): Valid as long as the cited Green Bond Allocation and Impact Report remains unchanged.
2. ISS Corporate Solutions, Inc. ("ISS-Corporate"), a wholly-owned subsidiary of Institutional Shareholder Services Inc. ("ISS"), sells, prepares, and issues External Reviews, on the basis of ISS-Corporate's proprietary methodology. In doing so, ISS-Corporate adheres to standardized procedures designed to ensure consistent quality.
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## ANNEX 1: Methodology

### Review of the post-issuance Reports

The ISS-Corporate Report Review provides an assessment of labelled transactions reporting against international standards using ISS-Corporate proprietary methodology. For more information, please visit: <https://www.issgovernance.com/file/publications/SPO-Report-Reviews.pdf>

### High-level mapping to the SDG

The 17 Sustainable Development Goals (SDGs) were endorsed in September 2015 by the United Nations and provide a benchmark for key opportunities and challenges toward a more sustainable future. Using a proprietary method based on ICMA's Green, Social and Sustainability Bonds: A High-Level Mapping to the Sustainable Development Goals, the extent to which the Issuers reporting and project categories contribute to related SDGs is identified.

## ANNEX 2: Quality management processes

### ISSUER'S RESPONSIBILITY

Issuer's responsibility was to provide information and documentation on:

- Green Bond Allocation and Impact Report
- Green Bond Framework
- Proceeds Allocation
- Reporting Impact Indicators
- Methodologies, and assumptions for data gathering and calculation
- ESG Risk Management

### ISS-CORPORATE'S VERIFICATION PROCESS

Since 2014, ISS Group, of which ISS-Corporate is part, has built up a reputation as a highly-reputed thought leader in the green and social bond market and has become one of the first CBI approved verifiers.

This independent Report Review has been conducted by following the ICMA Guidelines for Green, Social, Sustainability and Sustainability-Linked Bonds External Reviews, and its methodology, considering, when relevant, the ISAE 3000 (Revised), Assurance Engagements Other than Audits or Reviews of Historical Financial Information.

The engagement with Landesbank Baden-Württemberg took place in March and April 2024.

### ISS-CORPORATE'S BUSINESS PRACTICES

ISS-Corporate has conducted this verification in strict compliance with the ISS Group Code of Ethics, which lays out detailed requirements in integrity, transparency, professional competence and due care, professional behavior and objectivity for the ISS business and team members. It is designed to ensure that the verification is conducted independently and without any conflicts of interest with other parts of the ISS Group.

## About this Report Review

Companies turn to ISS-Corporate for expertise in designing and managing governance, compensation, sustainability and cyber risk programs that align with company goals, reduce risk, and manage the needs of a diverse shareholder base by delivering best-in-class data, tools, and advisory services.

We assess the alignment of the Issuer's report with external principles (e.g., ICMA Green / Social Bond Principles, ICMA Green Bond Principles, Social Bond Principles and Sustainable Bond Guidelines), analyze the alignment of the Issuer's Report against the commitments in the respective Framework, and analyze the disclosure of proceeds allocation, the data source, and calculation methodologies of the reporting indicators against best market practices. Following these guidelines, we draw up an independent Report Review so investors are as well as informed as possible about the proceeds allocation and the impact of the sustainability finance instrument(s).

Learn more: <https://www.isscorporatesolutions.com/solutions/esg-solutions/green-bond-services/>

For information on Report Review services, contact: [SPOsales@isscorporatesolutions.com](mailto:SPOsales@isscorporatesolutions.com)

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